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This material has been prepared for information purposes only and does not constitute an offer or solicitation, and should not be relied on in making a decision, to invest in any securities of Grupa Azoty Zakłady Chemiczne Police S.A. (the “Company”). It is not a promotional or advertising material within the meaning of Article 53 of the Polish Act on Public Offering, Conditions Governing the Introduction of Financial Instruments to Organised Trading, and Public Companies or Article 22 of Regulation (EU) No. 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC.

This material contains certain estimates pertaining to the operations of PDH Polska S.A. (“PDH”), a special purpose vehicle that is 53% owned by the Company and 47% owned by Grupa Azoty S.A. (the “Group”), and to the Polimery Police Project owned by PDH (the “Project”). These estimates are based on polypropylene and plastics market data.

They are valid as at their date and were prepared by the Company and PDH on the assumption that the source data on the polypropylene and plastics markets was accurate and reliable and that no circumstances had occurred or would occur that could have a material impact on the data after its receipt by the Company.

None of these estimates or source data relating to the Project have been audited, reviewed or otherwise verified by a qualified external auditor for their completeness and for the reliability of the underlying assumptions.

Certain statements contained in this document may be forward-looking statements, which can generally be identified by the use of words such as “may”, “will”, “should”, “seek”, “plan”, “anticipate”, “expect”, “estimate”, “believe”, “intend”, “forecast”, “goal” or “direction”, the negative of such words or other variations and similar expressions.

Forward-looking statements involve a number of known and unknown risks, uncertainties and other factors that may cause the Company’s or its industry’s actual results, levels of activity or achievements to be materially different from those expressed or implied by the forward-looking statements. The Company does not undertake any obligation to publicly update or revise any forward-looking statements contained in this material, whether as a result of new information or future events or circumstances or otherwise.

The Company, its subsidiaries, advisers and any other related entities will not be liable for any loss or damage arising from the use of this material, its part or its contents, or otherwise in relation to this material.
Key features of the equity increase as defined in the draft resolution

- Resumption of a secondary public offering of Grupa Azoty Zakłady Chemiczne Police S.A. shares ("SPO") aimed at increasing the Company’s share capital through the issue of new shares with pre-emptive rights.

- The offering is intended for Grupa Azoty Zakłady Chemiczne Police S.A. shareholders holding pre-emptive rights (rights issue).

- Expected proceeds: approximately PLN 1 billion.

- Proposed record date: November 7th 2019

- The proposed share capital increase should be effected by the end of 2019.
The Grupa Azoty Group’s special purpose vehicle PDH Polska S.A. is implementing a project to build an integrated chemical complex, one of the largest capital projects now afoot in the Polish industrial sector.

The project offers strong profitability and competitive advantage thanks to its state-of-the-art, advanced production technology, excellent location and highly favourable market conditions marked by a global oversupply of propane (feedstock) and a surge in polypropylene demand in Poland and the rest of Europe.

The project will be of strategic importance to Poland’s economy, helping significantly reduce the country’s plastics trade deficit, lessening Poland’s reliance for energy and feedstocks (a new liquid fuels terminal of European relevance), creating new jobs for highly qualified staff and building a platform for advancing science and R&D&I in Poland.

The technical aspects of the Polimery Police Project have been arranged. On May 11th 2019, PDH Polska S.A. and Hyundai Engineering Co, Ltd. signed a contract for execution of the Project. Construction should commence in the first quarter of 2020.

The total budget of the Polimery Police Project should not exceed EUR 1.52bn, of which EUR 1.18bn will be capital expenditure (Contractor’s remuneration, purchase of licences, preparatory work, capitalised salaries and wages, etc.). The balance will include PDH Polska S.A.’s non-capitalised operating costs, finance costs during the construction period, provisions for debt servicing and project cost overruns, resulting from the project finance model adopted to carry out the Polimery Police Project.

The process to raise funds for the project is nearing completion. PDH Polska S.A. has received initial bids on debt financing that covers the needs of the Project, and negotiations are currently under way. The company is also in advanced negotiations of equity participation terms and has signed letters of intent with Hyundai Engineering Co. Ltd, Korea Overseas Infrastructure & Urban Development Corporation (KIND) and Grupa Lotos S.A.
Plastics in Poland, Europe and globally
Plastic is an important and ubiquitous material in our economy and daily lives. It has multiple functions that help tackle a number of the challenges facing our society.”

Since 1950 global plastics production has grown at a rate of approximately 8.6%, reaching 348 million tonnes in 2017.
Polypropylene occupies a special place in the fast-growing plastics market

Global plastics production


The growth in plastics production since 2015 was estimated based on the trend in the last ten years.

Share of polypropylene in the European plastics market

Source: PDH Polska S.A. based on data sourced from the 2017 Annual Report of the PlasticsEurope Polska Foundation

PP - polypropylene
LLDPE - linear low-density polyethylene
LDPE - low-density polyethylene
PVC - polyvinyl chloride
PET - polyethylene terephthalate
HDPE - high-density polyethylene
PS - polystyrene
EPS - expanded polystyrene
PUR - polyurethane

Other 19.0%
LDPE, LLDPE 17.5%
PVC 10.2%
PS, EPS 6.6%
PET 7.4%
PUR 7.7%
Polypropylene is used in almost all sectors of the economy

Polypropylene sales by end user

Building & Construction; 9%
Industry; 10%
Car manufacturing; 15%
Textiles; 7%
Food packaging; 32%
Household products; 27%

The lifespan of plastics products

- Food packaging: 0.5 year
- Household products: 3 years
- Textiles: 5 years
- Other: 5 years
- Electrical and electronic components: 8 years
- Transport: 13 years
- Industry: 20 years
- Building & Construction: 5 years

Source: PDH Polska S.A. based on data sourced from the 2017 Annual Report of the PlasticsEurope Polska Foundation
The Polimery Police Project will place Poland among the leaders of Europe’s polypropylene market.

![Polypropylene production forecast after 2022 (thousand tonnes/year) – PDH Polska S.A.’s internal estimates based on Eurostat data](image)

- **Romania**
- **Bulgaria**
- **Finland**
- **United Kingdom**
- **Slovakia**
- **Poland**
- **Czech Republic**
- **Hungary**
- **Netherlands**
- **Italy**
- **Spain**
- **France**
- **Germany**
- **Belgium**

+437,000 tonnes supplied by PDH Polska S.A.
As most polypropylene plants are sited in Western Europe, Polimery Police will enjoy a geographical and logistics advantage in terms of its ability to serve Central Europe and Scandinavia.

Lead time will be 2 days compared with 4 to 5 days offered by direct competitors.

PDH Polska S.A. will use state-of-the art, universal polypropylene production licences to make products tailored to customer needs.
Homopolymers exhibit high stiffness and translucency, low density, good chemical resistance and relatively high heat resistance. At the same time, they have low impact strength, particularly at low temperatures.

Selected applications:
- food packaging, woven bags and fibres
- oriented films
- thermo-formed containers
- carpet fibres and non-woven fabrics
- bottle caps and other closures

Statistical copolymers are more impact resistant, translucent and flexible compared with homopolymers. They contain ethylene molecules inserted at random within the chain, with the ethylene content ranging between 1% and 7% (by weight).

Selected applications:
- heat-seal films
- bottles (blow moulding process)
- food containers
- general injection moulding applications
- thin-wall injection moulding (high transparency containers)

Impact copolymers have higher impact strength at lower temperatures compared with statistical copolymers. They contain ethylene molecules inserted in blocks within the chain, with the ethylene content ranging between 5% and 15% (by weight).

Selected applications:
- auto parts
- components of equipment, storage boxes, transport containers and rigid packaging
- pressure resistant films
Growing polypropylene demand has led to increased imports, as a result of which Europe is expected to lose its position as a net exporter of polypropylene.
The Grupa Azoty Group’s special purpose vehicle PDH Polska S.A. is implementing a project to build an integrated chemical complex called Polimery Police, one of the largest capital projects now afoot in the Polish industrial sector. The plant will comprise two units:

- PDH unit (propylene)
- PP unit (polypropylene)

and:

- storage and handling terminal (gas terminal),
- logistics infrastructure,
- auxiliary systems.

Both units were designed based on modern, US licences (Oleflex from Universal Oil Product (UOP LLC) and Unipol from Grace Technologies, Inc., respectively) to provide high flexibility in production and production of a wide range of polypropylene types.

The synergies between PDH Polska S.A. and Grupa Azoty Zaklady Chemiczne Police S.A. will enable the Group to maximise the use of hydrogen obtained in propylene production in its ammonia production unit.
On May 11th 2019, a lump-sum turn-key contract for the project was signed with Hyundai Engineering Co. Ltd.

The Polimery Police Project will be financed by the Grupa Azoty Group (Project Sponsor) and from external sources on a project finance basis. The financing structure is being negotiated with financial institutions.

In April 2019, a letter of intent was signed concerning Grupa LOTOS S.A.’s potential participation in the financing of the Polimery Police Project through the acquisition by Grupa LOTOS S.A. of new shares in PDH Polska S.A. and contribution of up to PLN 500m to PDH Polska S.A.’s share capital.

In May 2019, an investment cooperation agreement was signed in respect of the Polimery Police Project between Grupa Azoty S.A., Grupa Azoty Zakłady Chemiczne Police S.A., PDH Polska S.A., Korea Overseas Infrastructure & Urban Development Corporation (KIND) and Hyundai Engineering Co. Ltd. (HEC) (total maximum amount of capital declared by KIND and HEC: USD 130m)
The company’s team have the skills and qualifications necessary to successfully implement the Project.

» **dr Andrzej Niewiński**, President of the Management Board of PDH Polska S.A., has many years’ experience in managerial roles at large companies, including as CEO of ZM Agryf S.A., Okechamp S.A., Drewpol Sp. z o.o. Previously served as Vice-President and CFO of Zakłady Chemiczne Police S.A. He also has many years of academic experience.

» **dr Marek Czyż**, Vice President of the Management Board of PDH Polska S.A, has managerial experience in banking (Raiffeisen Bank Polska S.A.) and private equity. Chief Financial Officer of Szpital Wojewódzki w Gorzowie Wlkp. Sp. z o.o. A researcher at the Poznań School of Banking.

» **Władysław Madej**, Vice President of the Management Board of PDH Polska S.A. Experienced manager. He served as Production Director and Head of the Monomer Complex at Zachem S.A. He supervised the construction, commissioning, operation and modernisation of chemical projects in Poland and abroad. He holds 22 patents in propylene and propylene derivatives processing.

PDH Polska S.A.’s team consists of professionals with experience gained at PKN Orlen S.A., Grupa Lotos S.A., KGHM Polska Miedź S.A., Polskie LNG S.A. and Grupa Azoty S.A.:

» **Managing Director** at KGHM Polska Miedź S.A. He worked on a USD 6bn investment project.

» **Sales Director** with 30 years of experience in the chemical sector. He held senior managerial positions at LyondellBasell, Basell Polyolefins Europe, Montell Europe and Shell.

» **Head of the Project Execution Department at Polskie LNG**, contributed to the development of the LNG Terminal expansion concept.

» **Finance Department Director** at DNB Bank Polska, Raiffeisen (project finance, oil, gas and energy teams).

» **Head of the Procurement Department** at KGHM (modernisation of the pyrometallurgical plant; project value: USD 1bn).

» **Project managers** with experience gained working for PKN Orlen, Lotos 10+ EFRA, Baltic Pipe, and Grupa Azoty S.A.
The project is implemented in collaboration with experienced partners

External advisors of PDH Polska S.A.
- PwC Advisory Sp. z o.o. sp.k.
- CMS Cameron McKenna Nabarro Olswang Poźniak i Sawicki sp. k.
- ICIS
- BCG Boston Consulting Group
- Fluor S.A.

External advisors of financing institutions
- IHS Global Ltd.
- White & Case M. Studniarek i Wspólnicy - Kancelaria Prawna sp.k.
- Willis Towers Watson Polska Sp. z o.o.
- Ramboll Environ Poland Sp. z o.o.
- Deloitte Sp. z o.o.

General Contractor
- Hyundai Engineering Co. Ltd.

Technical Support Office
- KTI Poland S.A.

Contract Engineer
- ILF Consulting Engineers Polska Sp. z o.o.
1. Storage and handling terminal
2. PDH unit
3. Propylene storage facilities/import and dispatching terminal (railway)
4. PP unit
5. PP logistics infrastructure
6. Transmission pipelines
Feedstock supplies

Storage infrastructure (Police terminal)

PDH unit

Propylene storage tanks

PP unit

Storage infrastructure (polypropylene)

Product logistics

**Feedstock supplies**
- Propane carrier ship
  - up to 40,000 m$^3$ (22,000 tonnes)
  - Propane deliveries up to 500,000 tonnes annually
- Ethylene carrier ship
  - max. 10,000 m$^3$ (5,000 tonnes)
  - Ethylene deliveries up to 13,000 tonnes annually

**Storage infrastructure**
- Propane storage tanks
  - [2 x 40,000 m$^3$]
- Ethylene storage tank
  - [1 x 12,000 m$^3$]

**PDH unit**
- Propylene
  - 429,000 tonnes p.a. + Hydrogen
  - 17,000 tonnes annually
- Fuel gas
  - 53,000 tonnes p.a.

**Propylene storage tanks**
- Propylene storage tanks
  - [5 x 2,800 m$^3$]

**PP unit**
- Polypropylene
  - 437,000 tonnes p.a.

**Storage infrastructure (polypropylene)**
- Silos
- Pallets
- Containers

**Product logistics**
- Pallets
- Containers
Polimery Police: key milestones

1. Dec 1 2019
   Issue of Full Notice to Proceed (FNTP)

2. Q1 2020
   Launch of construction work by the General Contractor

3. Q2 2022
   Test run

4. Q4 2022
   Commercial operation
Project budget (EUR 1.52bn):

- Capital expenditure of EUR 1.18bn
- Other expenditure, including expenditure required under the project finance model (EUR 0.34bn), comprises:
  - capital expenditure reserve
  - financing costs during the construction phase
  - debt service reserve account
  - PDH Polska’s operating costs during the construction phase

Equity:

- The share of equity financing in the Project’s budget is currently estimated at ca. 40%.
- Additional capital is to be raised from a planned SPO by Grupa Azoty Zakłady Chemiczne Police S.A. and directly at the Project level.
- Raising equity finance from external investors, including HEC, KIND, and Grupa Lotos S.A.
- Relevant agreements with investors are to be signed in the fourth quarter of 2019.

Debt financing:

- Senior debt financing on a project finance basis - approximately 60% of the Project’s budget.
- Firm bids on debt financing are expected to be received in the fourth quarter of 2019.

Additional working capital finance of approximately EUR 176m.
Benefits to economic and social development of Poland and the entire region
**Significant reduction of Poland’s chemicals trade deficit**

The large-scale project (with a target annual capacity of 437,000 tonnes) has the potential to reduce polypropylene shortages on the domestic market.

**Expansion of Poland’s export capabilities in advanced plastics**

Given its scale, some of the PDH-PP project’s output will be sold abroad, positioning Poland among Europe’s net polypropylene exporters.

**Expansion of logistics infrastructure, supporting diversification of LPG supplies to Poland**

The construction of Poland’s largest LPG import terminal, capable of handling ships with a capacity of up to 22,000 tonnes, will allow Poland to tap into LPG sources such as the North Sea region, the US and Africa.

**A ‘multiplier effect’ - building a platform for further industrial growth**

A new chemical complex with polypropylene as its target product (a base for the manufacture of high-end products) will stimulate the development of related industries, including plastics converting.
The Polimery Police Project is centred on people and the natural environment.

- Polypropylene is easy to recycle.
- The propylene recycling process requires relatively low temperatures and generates low processing costs.
- Generally, the process helps to limit production of toxic substances, facilitating energy recovery.
- The company will actively participate in the Operation Clean Sweep programme.

- The company’s ambition is to become Poland’s leader in sustainable development.
- Efficient use of resources and products was already taken into account during the licence selection process.
- The company will promote the idea of sustainable development and open dialogue with all stakeholders.

PDH Polska S.A.

- The polypropylene production process is characterised by a negligible amount of waste and low carbon emissions.
- Utilisation of hydrogen from Grupa Azoty Zakłady Chemiczne Police S.A.’s PDH unit will help to reduce CO$_2$ emissions to 100,000 tonnes per year.
- The Project will also help to reduce CO$_2$ emissions related to transporting PP from other countries in Europe, Middle East, and Far East.

- The Polimery Police Project is implemented in line with the highest standards and best practices in safety.
- The Project accommodates conclusions from a series of process safety analyses, including HAZID/HAZOP/SIL/QRA.
- Plant operation will be based on the Process Safety Management System.
Polimery Police is a crucial project for successful delivery of the growth strategy for the Grupa Azoty Group, and especially Grupa Azoty Zakłady Chemiczne Police S.A.

Launch of polypropylene sales from the Police plant will raise the share of plastics in the Group’s overall sales mix, enhancing the Group’s revenue and margins, with a direct positive impact on its financial performance.
Expected shifts in Grupa Azoty’s revenue mix after commercial launch of the Polimery Police Project

Source: Grupa Azoty S.A.’s financial statements for 2018

* Grupa Azoty Group’s 2018 consolidated revenue increased by estimated revenue from the Polimery Police Project in the operational phase.
Thank you for your attention